Hot Topics in Human-Computer Interaction

Xiaojuan Ma
Spring 2017
About Topics@HCI

• Instructor
  – Xiaojuan Ma
  – Email: mxj@cse.ust.hk
  – Office: RM3562
• Location
  – CYT G009A
• Time
  – Lecture: Mon Wed 10:30am – 11:50am
  – Office hour: Mon Wed by appointment
Course Website and Space

- Team Link: [https://topicsinhci.slack.com/](https://topicsinhci.slack.com/)
- We will use Slack for course communication
  - Make course announcement
  - Publish course materials
  - Submit assignments
  - Public discussion
  - Private message
- Give me an email address and I will invite you
  - My Slack Team ID is `xm`
Slack Joins The Billion-Dollar Startup Club

http://www.forbes.com/sites/ellenhuet/2014/10/31/slack-raises-120m-at-1b-valuation/
• **Knowledge/Content Related:**
  • **Course ILO #1:** Understanding the basic concepts and methods in HCI research
  • **Course ILO #2:** Understanding the foundations and trends of HCI applications

• **Academic Skills/Competencies:**
  • **Course ILO #3:** Design an interactive system using various methods through different design activities.
  • **Course ILO #4:** Prototype an interactive system with assorted digital and physical tools
  • **Course ILO #5:** Evaluate an interactive system through user studies.

• **Other Learning Outcomes:**
  • **Course ILO #6:** Communicate effectively with target users and different stakeholders in academia and industry
Grading Scheme

- Reading List & Note: 15% = 10 + 5
- In-class presentation: 30% = 15 × 2
- In-class debate: 25% = 10 × 2 + 5
- Final video paper: 20%
- Participation + Bonus: 10%
• Lecture, Reading Note & Video Paper
  – Understand the basic concepts and methods in HCI
  – Understand the foundations and trends of HCI applications

• Lecture, Exercise, Reading Note & Video Paper
  – Learn to identify user needs, abilities, and constraints
  – Learn to design, prototype, and evaluate HCI technologies

• Lecture, Debate, Presentation & Video Paper
  – Analyze potential social impact and responsibilities as well as possible ethical, legal, security and privacy issues

• Debate, Presentation & Video Paper
  – Communicate effectively with target users and different stakeholders in academia and industry
• A recommended reading list (10%) by Feb 22
  – Provide a shared reading list of 8 papers Recommend 2 papers for each of the following topics:
    • Interaction everywhere
    • Interaction for people with special needs
    • Interaction beyond the individual
    • Interaction in the new paradigm
  – A 150 word preface + full ref + URL for each paper

• A full review of 1 selected paper (5%) by Mar 20
  – Contribution, idea, method, insight, communication
  – ≥ 600 words
• Preface (word limit ≤ 150)
  – Not abstract, but your reasons for recommendation
• Full Reference (ACM format)
  – See next page
• URL (where to download the pdf version)
  – E.g., ACM digital library (http://dl.acm.org/)
Scope of Topics

• Interaction everywhere
  – New modality, mobile, sensing & data, IoT, etc.
• Interaction for special needs
  – Special users, e.g., children, elderly, disabilities
  – Special domain, e.g., developing country, education, transportation, sustainability, creativity, security, etc.
• Interaction beyond the individual
  – Groupware, social computing, crowd computing, etc.
• Interaction in the new paradigm
  – Robot & AI, VR / AR, etc.
(1) Reading Note 15%

• Possible sources
  – Conference: CHI, UIST, CSCW, MobileCHI, DIS, etc.
  – Journal: TOCHI, HCI, IJHCS, IJHCI, IwC, etc.

• Late policy
  – Up to 3 days in total
  – Available only by request in advance through email or private message on Slack
  – No credit otherwise
• Each of you will give two talks on different topics
  – A “conference-style” talk of assigned reading digest
  – A “Ted-style” talk of technology digest
• No need to submit reading notes on the presentation topics – 3 points for free
• Grading rubrics
  – 12 points per presentation, 2 points each for:
    Comprehension, recall, Q&A | slides, manner, time
  – Rate by the audience: 1 pt: > 1/2; 2pt: > 2/3
(3) In-Class Debate 25%

• Divide into three groups
• Participate in two debates
  – Draw topic, draw side, draw order
  – Opening statement + Q&A + closing statement
• Judge one debate
  – Ask questions
  – Rate each person on: view point, evidence, presentation
• Dates: Feb 22, March 20, April 10
Submit a long video to Chinese CHI Video Contest

Theme “Ecological HCI”

Length: 2~5 min (2 people if > 3 min)

Key Dates
  – Submission of video: April 10, 2017
  – In-class video showcase: April 8, 2017
  – Notification of acceptance: May 10, 2017
  – Cameral-ready: May 25, 2017
• Video Showcase
  – Judged by Chinese CHI Video Contest panel
    • Reviews + best video award
  – Screening on May 8
  – Audience’s Choice
    • Most educational video (intellectually and/or socially)
    • Most innovation video (concept and/or application)
    • Most entertaining video (story and/or presentation)
(5) Participation + Bonus 10%

• Semi-flip classroom
  – A “taste of HCI” exercise: design, prototyping, etc.
  – A game / exercise related to the topic of the section

• Attendance + Activeness
  – Bring a pen/pencil and a deck of paper
  – 1 bonus point for answering a question, etc.
  – > 6 bonus points can be used to trade reading note(s)
<table>
<thead>
<tr>
<th>Course Learning Outcome</th>
<th>Exemplary</th>
<th>Competent</th>
<th>Needs Work</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the basic concepts and methods in HCI research</td>
<td>Define and clarify the basic HCI concepts and methodologies, and provide proper examples for demonstration</td>
<td>Define and clarify the basic HCI concepts and methodologies.</td>
<td>Define the basic terminologies and methodologies in HCI research, have difficulty in explaining the details, conditions, and contexts.</td>
<td>Have difficulty in explaining the basic concepts and processes of common design / prototyping / evaluation methods in HCI research</td>
</tr>
<tr>
<td>Understanding the foundations and trends of HCI applications</td>
<td>Elicit the history of HCI applications, the key changes, and driving forces, clarify the major challenges and future directions</td>
<td>Elicit the history of HCI applications, and explain the key changes and driving forces</td>
<td>Elicit the history of HCI applications, have difficulty in explaining the key changes and driving forces</td>
<td>Have difficulty in identifying the core values, scopes, challenges, and trends in HCI applications</td>
</tr>
<tr>
<td>Design an interactive system using various methods through different design activities</td>
<td>Conduct common design activities such as needfinding, make good use of design tools such as mindmap, and generate clear design insights</td>
<td>Conduct common design activities such as needfinding and make good use of design tools such as mindmap</td>
<td>Conduct common design activities such as needfinding and brainstorming, have difficulty in using design tools such as mindmap</td>
<td>Have difficulty in conducting common activities such as needfinding and brainstorming in design process to generate design ideas</td>
</tr>
<tr>
<td>Prototype an interactive system with assorted digital and physical tools</td>
<td>Conduct common prototyping activities, make good use of various prototyping tools, and generate prototypes at different fidelities</td>
<td>Conduct common prototyping activities and make good use of various prototyping tools</td>
<td>Conduct common prototyping activities, have difficulty in using various prototyping tools</td>
<td>Have difficulty in conducting common prototyping activities and using various prototyping tools</td>
</tr>
<tr>
<td>Evaluate an interactive system through user studies</td>
<td>Design and conduct user studies and data analysis, make good use of various prototyping tools, and generate good design implications</td>
<td>Design and conduct user studies and data analysis, and make good use of various prototyping tools</td>
<td>Design and conduct user study and data analysis, have difficulty in using various evaluation tools</td>
<td>Have difficulty in designing user studies and conducting data analysis</td>
</tr>
<tr>
<td>An ability to communicate effectively with target users and different stakeholders in academia and industry</td>
<td>Explain HCI designs / applications to a general audience and handle questions, and make good use of multimedia</td>
<td>Explain HCI designs / applications to a general audience and handle questions</td>
<td>Explain HCI designs / applications to a general audience, have difficulty in handling questions</td>
<td>Have difficulty in explaining HCI designs / applications to a general audience</td>
</tr>
</tbody>
</table>


“Stay hungry. Stay foolish.”

- By Steve Jobs
Learning Aims

Conscious  Critical  Creative
Work for Today

• Join Slack and play with it
• Sign up for “conference” & “Ted” talks in Doodle
  – Deadline: Wednesday, February 20, 2017
  – Post your top 3 choices of topics
  – First come first serve
Questions?

Xiaojuan Ma
mxj@cse.ust.hk